

ASHRAE TC 10.7

Commercial Food & Beverage Refrigeration Equipment

2018 ASHRAE Annual Meeting

Agenda for Monday, June 25, 2018, 2:15 pm - 4:15 pm

Hilton Americas-Houston, Grand E Room, 4th floor, Houston, TX

Note: The ASHRAE Code of Ethics is to be adhered to by those doing ASHRAE business whether or not they are an ASHRAE member. <https://www.ashrae.org/about-ashrae/ashrae-code-of-ethics>

1. Welcome & Introductions – Sign-In Sheets

2. Review and Revise Agenda

3. Determination of Quorum

4. Review Scope / MBO's

TC10.7 Scope: TC 10.7 is concerned with the application and performance of equipment and systems for the refrigeration of food and beverages in commercial operations. This includes commercial equipment such as refrigerated merchandisers and storage cases, walk-in freezers and coolers (<3000 sq. ft.), beverage vendors and dispensers, commercial ice makers, and water coolers.

TC10.7 MBO's (Objectives):

- The pursuit of technological advancement of commercial food and beverage equipment and systems to enhance overall performance through improved food safety, food quality, energy efficiency, and reduced environmental impacts.
- To provide engineering design, application knowledge, and technical expertise to effectively support research and the Refrigeration handbook chapters and standards for which we are responsible.

5. Recognition of Liaisons & Announcements:

Committee Liaisons:

- Section Head Jim Tauby
- Program Committee Liaison Kevin Gallen
- Research Committee Liaison John Shonder
- Handbook Committee Liaison Scott Fisher
- Chapter Technology Transfer Committee Liaison Gerald Hartford
- Standards Committee Liaison Cecily Grzywacz
- Refrigeration Committee Liaison..... Charlie Hon
- ALI/PDC LiaisonHugh McMillan
- MTG Low GWP Liaison..... Brian Fricke

Announcements

6. Membership:

Current TC10.7 Management Team

- Chair Tim Anderson (VM 6/19)
- Vice Chair Brian Fricke (VM 6/19)
- Secretary Lauren Zelinski (VM 6/19)
- Research Subcommittee Chair Shitong Zha (VM 6/19)
- Standards Subcommittee Chair Jon Murray (VM 6/18)
- Program Subcommittee Chair Gustavo Pottker (VM 6/19)
- Handbook Subcommittee Chair Dave Demma
- Webmaster Kyle Larson
- Additional Voting Members: Carl Roberts (6/18), Pradeep Bansal (6/19), Cesar Lim (Non-Quorum 6/19), Daryl Erbs (6/20), and Massoud Neshan (6/20)

7. Review Draft Minutes from the 2018 Winter Meeting in Chicago, IL

8. Subcommittee Reports:

A. Program Subcommittee (Gustavo Pottker)

Meeting: Sunday, 5:15pm-6:00pm, Hilton Room 332 (3)

Seminar 27: Supermarket Refrigeration System Diagnostics: Opportunities and State of the Art

Monday, June 25th, 8:00am – 9:30am

Seminar 71: Recent Advances in Solid-State Cooling Technologies

Wednesday, June 27th, 11:00am – 12:30pm

For the Refrigeration Track for the Atlanta Winter 2019 meeting, looking for ideas to complement a seminar around system architecture/design changes for low-GWP refrigerants—MTG Low-GWP would be a co-sponsor of this

Other seminar ideas:

- Life After R-404A
 - Experiences with new products
 - Experiences from end users
 - Service of this equipment?
 - Regulatory/policy side
- IoT, Big Data, and control methodologies to improve the operation and efficiency of commercial refrigeration equipment – Raman and Daryl Erbs
- Coating technologies – Stefan Elbel and Raman F.

New ideas:

- Transactive control (electrical load shifting) for refrigeration equipment (e.g., ice makers) to correspond to renewable power generation.
 - Could thermal storage fit into this?
- Seminar on blast chillers and freezers and other “specialty refrigeration applications”

- Living with a 150 gram charge limit on Hydrocarbons

B. Research Subcommittee (Shitong Zha)

Meeting: Sunday, 6:00pm-6:45pm, Hilton Room 332 (3)

RTAR 1831: Validation of a Test Method for Applying a Standardized Frost Load on a Test Evaporator in a Test Chamber with an Operating Conditioning System

Contact: Zelinski, Lauren <LZelinski@ahrinet.org> (AHRI with DOE)

Accepted with comments

Action: Need update on this

RTAR 1722 Optimizing Air Curtains and the effect on the infiltration load of Refrigerated Display Cases with Glass Doors

Contact: 'Mike Chieffo' <Mike.Chieffo@zero-zone.com>; Carl Roberts Carl.Roberts@zero-zone.com

Resubmitted to Dr. Khalifa (RL) in Aug. 14, 2017

Received comments from Dr. Khalifa

Action: Mike Chieffo to address comments from Dr. Khalifa and send him how to address the comments in letter and the update RTAR

RTAR 1706 Minimum Refrigerant Charge Attainment for Commercial Refrigeration Systems

Contact: Erbs, Daryl G Daryl.Erbs@welbilt.com

Resubmitted to RAC on June 24, 2018

Action: Waiting on response from RAC

New ideas:

CO2 DX case test method: different from HFC DX cases (e.g., entering refrigerant liquid temperature and pressure). Needed for Standard 72 and others (210?)

RTAR - DOE test according to ASHRAE Standard 72 and how instrument accuracies and input tolerances can affect the outcome of the test results and repeatability.

This could involve both analytical and testing. It was noted that ASHRAE 37 may be doing something similar and this should be considered when developing this RTAR. SPC 37 should be contacted and SSPC 72 should propose an RTAR for this. Lauren will reach out to the chair of SPC 37 to determine the status of this project and then report back to SSPC 72 and TC 10.7

Transactive control (load shifting) for refrigeration equipment (e.g., ice makers) to correspond to renewable power generation.

Other Ideas?

C. Handbook Subcommittee (Dave Demma)

No meeting in Houston

Refrigeration, Chapter 15 – Retail Food Store Refrigeration and Equipment

Refrigeration, Chapter 16 – Food Service and General Commercial Refrigeration Equipment

D. Standards Subcommittee (Jon Murray)

TC10.7 is the Cognizant TC for the following standards:

Standard 18-2008, Methods of Testing for Rating Drinking-Water Coolers with Self-Contained Mechanical Refrigeration

Standard 29-2015, Methods of Testing Automatic Ice Makers

Standard 32.1-2016, MOT for Rating Vending Machines for Bottled, Canned and Other Sealed Beverages

SPC-32.2 Meeting *MOT for Rating Pre-Mix and Post-Mix Beverage Dispensing Equipment*

SSPC-72 MOT Open and Closed Commercial Refrigerators and Freezers (Jon Murray)

Meeting: Sunday (6/24) 1:00 pm – 5:00 pm Hilton Americas Room 230 (2)

SPC 210 Meeting MOT/for Rating Commercial Walk-in Refrigerators and Freezer (Lauren Zelinski)

Meeting: Monday (6/25) 8:00 am – 12:00pm Hilton Americas Room 329 (3)

SPC 220P Method of Testing for Rating Small Commercial Blast Chillers, Chiller Freezers and Freezers (Dennis Livchak)

Meeting: Monday (6/25) 4:30pm – 6:00pm Hilton Americas Room 327 (3)

9. New Business

Notes:

Upcoming ASHRAE Meetings:

ASHRAE Winter Meeting Jan. 12-16, 2019 - Atlanta, GA

ASHRAE Annual Meeting June 22-26, 2019 - Kansas City, MO

ASHRAE Winter Meeting Feb. 1-5, 2020 – Orlando, FL

ASHRAE Annual Meeting June 27 – July 1, 2020 – Austin, TX

ASHRAE Winter Meeting Jan. 23-27, 2021 – Chicago, IL

10. Adjournment